BEVERIDGE BRIDGE
Texas Historic Bridges Recording Project
Spanning San Saba River at County Route 112
San Saba
San Saba County
Texas

HAER No. TX-46

TEX 206-SANSA, 1-

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

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HISTORIC AMERICAN ENGINEERING RECORD National Park Service 1849 C Street NW Washington, DC 20240

HISTORIC AMERICAN ENGINEERING RECORD

HAER TEX 206-SANSA, 1-

BEVERIDGE BRIDGE

HAER No. TX-46

Location:

Spanning San Saba River at County Route 112, San Saba,

San Saba County, Texas. UTM: 14/524740/3452800

USGS: San Saba, Texas, quadrangle (1976).

Date of Construction:

1896.

Designer:

Flinn-Moyer Company, Weatherford, Texas.

Builder:

Flinn-Moyer Company, Weatherford, Texas.

Present Owner:

San Saba County.

Present Use:

Vehicular bridge.

Significance:

This 140'-0" clear span bridge is a rare surviving example of the work of the Flinn-Moyer Company, whose output helped establish a tradition of regional suspension bridge building in turn of the century Texas. It is one of only two suspension bridges in Texas still used for vehicular traffic, and one of only seven pre-1940 suspension bridges left in

the state. The Austin Bridge Company of Dallas

reconstructed it in 1938.

Historian:

J. Philip Gruen, August 1996.

Project Information:

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contributed generously to this report.

Introduction

On June 24, 1896, five people, including a journalist from the San Saba County News, made the inaugural trip from the town of San Saba, Texas, to the new suspension bridge past China Creek Road over the San Saba River. The bridge apparently made a significant enough impression that the writer declared the structure "a model of beauty from the standpoint of mechanical construction" and as "serviceable as it is attractive" in the next publication of the newspaper.¹

One hundred years later, what is called the "Beveridge Bridge" remains an efficient thoroughfare for traffic traveling to and from the city of San Saba along what is now County Route 112.² Despite deflections in the roadway caused by vehicular crossings, the bridge maintains a structural stability that belies its age and simple construction.

More importantly, the 140'-0"-long structure is one of only seven remaining suspension bridges in the state of Texas (two of which are in San Saba County), and one of two still in vehicular service.³ It is also one of a number of small suspension bridges built around the turn of the century by the Flinn-Moyer Company of Weatherford, Texas, whose once prolific output now includes only two surviving examples. Three of the seven remaining suspension bridges are in some way associated with the efforts of William Flinn. The Flinn-Moyer Company and others associated with Flinn were among the earliest bridge-building companies based in Texas, and the sheer number of suspension bridges they built is testimony to an unparalleled suspension bridge-building tradition in Texas at that time.

Development of San Saba County

The Beveridge Bridge opened to the public in 1896, forty-two years after the founding of San Saba and forty years after it was named the county seat. The San Saba area, however, was settled many years before that, when Spanish Governor Juan Antonio Bustillo y Zevallos and a team of soldiers and guides moved westward from the Colorado River. On December 5, 1732, they found a river which they named after Saint Sabas, a seventh-century Spanish saint who died

¹ San Saba County News, 26 June 1896, p. 1.

² Court records indicate that the bridge is named for John H. Beveridge, owner of land near the site and resident construction supervisor for the bridge. Some locals, however, have been known to refer to it simply as the "Swinging Bridge." For example, see Marsha Stricker, San Saba County Historical Sketchbook (San Saba: San Saba Independent School District, n.d.).

³ The other extant suspension bridge in the county is the Regency Bridge spanning the Colorado River at County Route 126 (1939, HAER No. TX-61), between San Saba and Mills counties. Until 1971, there was also a suspension bridge spanning the Colorado River at FM 580 (1938), between Bend, San Saba County, and Lampasas County. See also Appendix B.

on that same day in the eighth century. At the same site in 1757, Spanish colonists erected a mission in an effort to convert the Comanche and Apache tribes to Christianity. Three years later, the Native Americans attacked, killing the missionaries and burning the mission to the ground.

Development and settlement proceeded slowly after this initial turbulence, but by 1839 many settlers, mostly Anglo-Americans, managed an existence from the fertile landscape near the geographic center of the state, an area where the farming of the east meshes with the ranching of the west, where both crops and cattle can — and do — sustain the local economy.

By 1875, a system of canals built by the Fleming San Saba Irrigation Company opened the area to large-scale farming, with cotton as the principal crop. Other crops included oats, tobacco, wheat, corn, and barley, which, along with a large local supply of livestock, kept San Saba predominantly self-sufficient into the 1880s.⁴ By 1884, the city included four churches, two schools, a sawmill, grist mill, bank, post office, the San Saba County News, and a population of 800.⁵

In 1886, a railroad station was constructed along the Gulf, Colorado, and Santa Fe line in Lometa, a community approximately twenty-one miles to the west. This shifted San Saba's insular production focus to the lure of outside markets. Instead of growing crops and raising cattle for the sole purpose of sustenance, San Sabans began to take their goods to a shipping point set up in 1891, where hired drivers would haul them via stagecoach to Lometa. By 1896, population had reached 1,200, and with a large share of crops now cultivated just north of the San Saba River, it was necessary to provide a crossing for convenient transport of goods into town.⁶

⁴ San Saba today is noted primarily for its annual yield of pecans. In 1888, Dutch immigrant Edward Risien developed a particular hybrid of pecan trees, which became the city's leading crop by the 1920s and earned it some renown as the "Pecan Capital of the World." It was not until the twentieth century that Risien's initial labor began to contribute significantly to the local economy. In 1919, for example, the city produced three million pounds of pecans. By 1935, that figure rose to five million pounds. See Alma Ward Hendrick, *The Call of the San Saba: A History of San Saba County*, 2nd ed. (Austin, Texas: San Felipe Press, 1969), p. 273.

⁵ San Saba Historical Commission, San Saba County History (San Saba: San Saba Historical Commission, 1983), p. 472, or Alice Gray Upchurch, "A Sketch of San Saba County, Texas," Southwestern Historical Review 50 (1946-47): 98-103.

⁶ For information regarding the railroad and its impact on the town, see San Saba Historical Commission, pp. 484-87.

Crossing the San Saba River

The individual responsible for an initial crossing over the river along China Creek Road was John H. Beveridge, an Irish immigrant who settled in San Saba in 1849. Beveridge eventually gained the rights to a good deal of cotton-producing land near the river, and he built a cotton gin alongside it. To facilitate the transport of his cotton into town, Beveridge spanned the San Saba River with a dam that became known locally as the "Beveridge Crossing". In addition to cotton, it is probable that local farmers either transported bushels of oats over the Beveridge Crossing into town, or that townspeople traveled over the dam to buy the oats themselves. But frequent flooding of the San Saba River and the increased horse and wagon traffic rendered Beveridge's dam ineffective and unstable over the years. Before too long a sturdier structure — more able to withstand occasional flooding — was needed over this portion of the river.

Farmers were not the only ones with vested interests for erecting a permanent structure over the San Saba River. It is likely that William F. Crawford, proprietor for a livery, feed, and sale stable in San Saba, envisioned the bridge as a substantial lift to his business. Because he provided one of a few daily transports delivering goods between San Saba and Lometa, a more efficient crossing over the San Saba logically meant a higher volume of business and a larger revenue stream for his delivery service. This was the likely motivation for Crawford's provision of transport that accompanied the party of officials on the inaugural trip across the bridge.⁸

Local newspaper articles and letters also lend evidence to the growing economy and the subsequent need for infrastructure improvements. As early as 1891, 114 San Sabans petitioned the county commissioners for construction of a bridge over Brownwood Road.⁹ In a letter printed in an 1896 issue of the San Saba County News, John A. Sloan, owner of a huge cattle ranch in the area whose success depended upon adequate transportation, expressed a desire to learn where those running for county commissioner and county judge stood regarding the construction of local roads and bridges.¹⁰

⁷ In 1896 issues of the San Saba County News, different farmers advertise their "red rust proof oats" at twenty-five cents per bushel. For example, one farmer, H. H. Wells, advertises bushels of oats at his home "just north of the river on China road." This would put Wells' farm in the immediate vicinity of the bridge site. See San Saba County News, 24 January 1896, p. 4.

⁸ San Saba County News, 26 June 1896, p. 1.

⁹ San Saba County, Texas, *Commissioners' Court Minutes*, vol. C (San Saba County Courthouse, San Saba, Texas), p. 403 (13 May 1891).

¹⁰ Sloan, claiming to express the "sentiment of the community," asks the candidates to outline, via the newspaper, their policy in building bridges, improving roads, and in purchasing road material. See J. A. Sloan, San Saba County News, 29 May 1896, p. 1.

Finally, the creation of new schools in the San Saba area provided further impetus to span the crossing so as to facilitate the safe passage of students. That it was of some import to local schools is brought to bear in what appears to be an early photograph of the bridge reproduced in a county history. In the photo, twenty-two elementary or junior high school age students pose on the wooden planks of the bridge.¹¹

Design and Construction, 1896

The construction of the Beveridge Bridge emerges from this context. On February 14, 1896, the court commissioners of San Saba County approved four bonds of \$500.00 each for a bridge at the Beveridge Crossing, to be paid back by the year 1916.¹² On March 15, 1896, county records show that the bridge's designers, the Flinn-Moyer Company of Weatherford, Texas, agreed to extend the structure to 130'-0" with "some modifications" for the sum of \$2,275.00. On March 7, 1896, the commissioners appointed John H. Beveridge to supervise its construction.

A suspension bridge, rather than the common metal truss, was chosen to span the river at this location. This may have been because of the lower cost of a suspension bridge (generally requiring less material than for a metal truss bridge), the opportunity for builders to avoid building piers in shifting sands, and the type's ability to withstand flooding.¹³ While erecting the

¹¹ San Saba Historical Commission, p. 439.

¹² Commissioners' Court Minutes, vol. D, p. 277 (14 February 1896). The county reserved the right of redemption at any time after five years of the bond issuance. See also San Saba County News, 29 May 1896, p. 1.

of the San Saba River, but the overall tendency for Texas rivers to flood after heavy rains was apparently the rationale for building suspension bridges over the Rio Grande and the Red River. See Joseph E. King, A Historical Overview of Texas Transportation, Emphasizing Roads and Bridges (Lubbock, Texas: Center for History of Engineering and Technology, Texas Tech University), p. 59. Furthermore, the high water and periodic flooding of the Brazos River may have been one reason a suspension bridge was built in Waco, and why the Regency Bridge was built between San Saba and Mills counties. See T. Lindsay Baker, Building the Lone Star: An Illustrated Guide to Historic Sites (College Station, Texas: Texas A&M University Press, 1986), pp. 203, 260. See also Joseph E. King, Spans of Time: Oklahoma Historic Highway Bridges (Lubbock, Texas: Center for History of Engineering and Technology, Texas Tech University, June 1993), p. 6.

bridge, the builders paid \$500.00 of their own money to employ local labor and hauling equipment, thereby contributing directly to the local economy.¹⁴

Flinn-Moyer Company

The county commissioners chose the Flinn-Moyer Company to design and build the bridge. That there was a bridge building company in Texas at all prior to the twentieth century is unusual, for nearly all of the major companies erecting bridges in Texas and elsewhere, such as the Berlin Iron Bridge Company, the King Bridge and Iron Company, and the Chicago Bridge and Iron Company, were headquartered in other states.¹⁵

Flinn, a native of Iowa Point, Kansas, arrived in Texas in the 1880s at the age of twenty and became a contractor, eventually teaming with A. A. Moyer to design and build bridges in Parker County and elsewhere in Texas. The company gained some regional fame building truss and suspension bridges in Parker and surrounding counties.¹⁶

In 1891, Flinn, at the time in partnership with E. E. Runyon of the Runyon Bridge Company, erected a 140'-0" clear-span cable-stayed suspension bridge over the Paluxy River in the small Texas town of Bluff Dale. Although it is now out of service, moved from its original location, rebuilt, and bypassed by a concrete girder bridge, the Bluff Dale suspension bridge is the oldest cable-stayed suspension bridge in Texas and possibly the oldest bridge of that type in the United States.¹⁷ It is likely that the reliability of this bridge and other early bridges built by Flinn established his reputation and earned him commissions all over the state.

¹⁴ San Saba County News, 29 May 1896, p. 1.

¹⁵ The Austin Bridge Company of Dallas eventually became Texas's largest company, but it did not begin operations until 1910. There is also evidence in Texas around the turn of the century of a Waco Bridge Company, a Cunningham Bridge Company of Palo Pinto County, a Runyon Bridge Company, and a "Mitchell and Pigg".

¹⁶ Parker County Historical Commission, *History of Parker County* (Dallas: Taylor Publishing Company, 1980), p. 292. A brief biography of the Flinn family in this publication mentions that William Flinn built the Dark Valley Bridge over the Brazos River and a decorative iron bridge that formerly spanned North Main Street in Weatherford.

¹⁷ The Bluff Dale Suspension Bridge received both a historical marker from the Texas Historical Commission and National Register recognition in 1977. For more detailed analyses of the bridge, readers are encouraged to consult Baker, *Building the Lone Star*, pp. 20-22, or Mark M. Brown in U.S. Department of the Interior, Historic American Engineering Record (HAER) No. TX-36, "Bluff Dale Suspension Bridge," 1996, Prints and Photographs Division, Library of Congress, Washington, D.C.

In May of 1896, and just before construction commenced on the Beveridge Bridge, Shackelford County records show that the Flinn-Moyer company erected a suspension bridge of the more common catenary type over the Clear Fork of the Brazos River in that Texas county.¹⁸ This bridge, with its tripod pipe towers (now encased in concrete), wire cables, and 140'-0" clear span, was nearly identical to the Beveridge Bridge.

In 1903, Flinn's company received bridge building commissions from at least five counties, and the local Weatherford newspaper considered Flinn the state's "most successful bridge builder." In July of that year, Flinn was on his way to build two more suspension bridges in Fisher County, over 100 miles to the west. Photographs from the archives of Timothy L. Flinn, great grandson of William Flinn, reveal a number of other suspension bridges built by the company, most of which no longer exist. 21

A Brief History of Suspension Bridges

While suspension bridges are often associated with the giant spans of the mid-to-late twentieth century, there were nevertheless a number of small-scale suspension bridges built in the southern and western parts of the United States in the late nineteenth and early twentieth centuries.²² In Texas alone, a number of small-scale suspension bridges existed in rural areas by the turn of the century.²³

¹⁸ See Mark M. Brown in HAER No. TX-64, "Clear Fork of the Brazos Suspension Bridge," 1996.

¹⁹ "Parker County's Bridge Man," Weatherford Daily Herald, 30 June 1903.

²⁰ The company passed solely into the hands of Moyer after Flinn's death in 1904. After Moyer's death, his brothers from Tennessee took over the company. Information from Timothy L. Flinn, to Mark Brown, 24 June 1996.

²¹ For an inventory of all known Flinn-Moyer bridges, see Appendix C.

²² Donald Jackson, *Great American Bridges and Dams* (Washington, D.C.: Preservation Press, 1988).

²³ Not all of these early suspension bridges were built by Flinn. In 1906, twin suspension bridges were built over the Brazos River in southern Parker County by Mitchell and Pigg. One of these bridges, locally known as the "Tin Top" suspension bridge, stood until 1982, when a rare snowstorm ripped its deck apart and sent most of the bridge plummeting into the Brazos. See T. Lindsay Baker, "Tin Top's Forgotten Twin Spanned Brazos . . . ," Weatherford Democrat, 15 April 1983, p. 7.

While there are records of suspension-type bridges in the mountainous regions of Asia and South America over 2,000 years ago and evidence that the technology for a suspension bridge was available to European builders in the seventeenth and eighteenth centuries, "modern" suspension bridge technology is believed to have been put into practice by American engineer James Finley in the early nineteenth century. Finley received a patent in 1808 for suspension bridges with wooden towers and chains that represented the first examples of the modern type.

Most of the large suspension bridges of the nineteenth century featured styling based upon historical tradition, primarily manifest in the design of the towers. In Britain, civil engineer Thomas Telford applied Gothic styling to his towers, while Isambard K. Brunel looked to ancient Egypt for design inspiration. French bridge engineers of the nineteenth century, such as Louis J. Vicat and Claude Navier, looked to the triumphal arches of Napoleonic France, with origins in Imperial Rome, for the appearance of their towers. Yet the French used iron-wire cables rather than eye-bars to hold up the decks, though the latter were favored by the British and more readily available to them.²⁴ The use of wire cables was eventually embraced by American bridge engineers, and would usher in a new era of suspension bridge design.

In the 1840s, Charles Ellet and John A. Roebling were the first engineers to apply this technology to American bridges. By the time construction began on the Beveridge Bridge, Ellet had already designed the 1,008'-0" clear-span suspension bridge spanning the Ohio River at Wheeling, West Virginia, as had Roebling for his bridges spanning the Ohio River between Cincinnati, Ohio, and Covington, Kentucky, and the East River between New York City and Brooklyn. Although they used wire technology, these bridges still featured towers with historic references.

Builders in Texas continued this tradition when the state's first suspension bridge went up over the Brazos River in Waco. The plans for this bridge were drawn up by Thomas M. Griffith, who used material from Roebling's company in Trenton, New Jersey. The 475'-0" clear-span bridge, as originally built, featured prominent brick towers of castellated construction. Despite a complete rebuilding from 1913 to 1914 by the Missouri Valley Bridge and Iron Company of Leavenworth, Kansas, which, among other things, covered the original towers and obscured their Gothic design, the Waco bridge is still the longest and most monumental suspension span in the state. In recent years, the bridge was bypassed and limited to a pedestrian-only crossing.

These monumental and historicist examples notwithstanding, most American suspension bridges in the late nineteenth and early twentieth centuries were characterized by a simplicity of construction and a temporary, unfinished look, due to the high cost of manual labor.²⁵ Relative

²⁴ Emory L. Kemp, "National Styles in Engineering: The Case of the Nineteenth Century Suspension Bridge," *IA: The Journal of the Society for Industrial Archaeology* 19, No. 1 (1993): 26-30.

²⁵ Ibid., p. 33.

to the considerably more blatant historicism displayed in the nineteenth-century European examples, the American application of historical motifs was on the whole rather tame.

Description

With the construction of the Beveridge Bridge, what had become a gradual American trend toward simplicity and efficiency (albeit on a considerably smaller scale) had reached its apex, or its nadir, as the case may be. Aside from a carefully executed name plate and the triangular configuration of small pipes connecting the towers, the Beveridge Bridge is virtually devoid of formal or academic ornamentation, leaving nothing that is, or was, not necessary for the purposes of structure and function.

Although no plans or contract specifications have been found regarding the original construction of the bridge, a newspaper article in the San Saba County News shortly after the span opened to traffic explained that the bridge combined "suspension and truss" features, and was built "entirely of iron and steel." The 140'-0" clear-span bridge measured 190'-0" from abutment to abutment, and extended approximately 300'-0" between anchorages.

Because the Beveridge Bridge has been reconstructed at least three times, an analysis of its original design is somewhat difficult. Nevertheless, existing specifications from a reconstruction completed by the Austin Bridge Company in 1938 reveal that the original towers and suspender rods were to remain as initially built. The tripodal metal pipe towers extend 18'-0" above the deck and are connected with smaller metal pipes at regular intervals. These smaller pipes spiral around the larger ones, forming triangular bracing with an intriguing visual effect.

According to the article in the San Saba County News, the towers were placed eighteen feet into the ground, there resting upon a 7'-thick slab of masonry which had partially filled the original 25'-deep excavation. A rock abutment was apparently built to support the bridge when it met grade level on the northern side, and a pile was driven where the bridge meets grade level on the southern edge.²⁶ Today, diagonal braces provide additional tower support beneath the deck.

Atop the 5"-diameter tower pipes are cast-iron saddles holding the cables. Originally, these cables were fastened in buried rock anchorages (the present anchorages are concrete). The 2"-diameter cables consisted of 500 galvanized steel wires with a tensile strength of sixty-six tons per square inch of solid metal. As they did originally, metal collars attached to the cables hold the wires in place and form the top portion of the metal suspender rods. These two-part rods are suspended from the cables, connected by metal turnbuckles, and hold up the deck at 10'-0" intervals.

Today the 16'-0"-wide roadway is supported on seven longitudinal steel stringers, in turn upon thirteen lateral riveted steel I-beams. Two of the I-beams are of shorter length than the rest,

²⁶ There is no longer any evidence of these abutments.

and contain welded plates where the suspender rods are connected to the beams.²⁷ The 1-beams extend beyond the deck, where 3" x 3" angles are attached to support outriggers extending from the railing. While the steel deck framing is probably of post-1896 vintage, an understanding of the bridge deck's original appearance comes from an examination of the Clear Fork of the Brazos Suspension Bridge, built that same year by Flinn-Moyer. At the Clear Fork bridge, wooden stringers, held by beams made from metal pipes connected to the outriggers, support the deck.²⁸

Shortly after the completion of the Clear Fork of the Brazos Suspension Bridge, a team of workers finished the Beveridge Bridge in only fifteen days. It opened to traffic on June 24, 1896, quickly became an essential part of daily operations in the city of San Saba, and provided a major boost to the local economy. After a disastrous flood of the San Saba River in 1899 damaged bridges all over the county and even washed away a home at the site, the Beveridge Bridge had become important enough that the county commissioners recommended its quick reparation despite the strain on the depleting county coffers.²⁹ It may have been at this time that the steel 1-beams were placed underneath the deck.

Evolution of Structure and Site, 1896 to Present

After years of lobbying the railroad companies to extend a line into the city, a railroad spur of the Gulf, Colorado, and Santa Fe Railroad reached San Saba in 1911. The spur provided another lift to the local economy and putting an end to the daily treks to Lometa.³⁰ But Beveridge Bridge traffic did not abate; as farmers began realizing that the potential for considerably greater revenue was now at hand, the traffic probably increased. Through much of the first half of the twentieth century, stagecoaches, and then trucks, hauled crops and cattle to and from the San Saba station over the bridge. It was only after the improvement of roads and the construction of state highways — the latter came later to San Saba than to any other county in Texas — that the importance of rail transport began to decline.³¹

Only floods slowed the bridge down, and the 1899 flood was not the last. In 1922, another flood affected the county, and then in July of 1938, after twenty-four to twenty-six

²⁷ Those beams of shorter length, because of their welded plates, were probably added during the 1938 reconstruction by the Austin Bridge Company.

²⁸ See HAER No. TX-64, "Clear Fork of the Brazos Suspension Bridge."

²⁹ Commissioners' Court Minutes, vol. E, p. 213 (22 February 1900), transcribed by D. Moore (8 September 1988).

³⁰ This railroad line eventually became a part of the Atchison, Topeka, and Sante Fe Railroad. Both lines are presently operated by the Santa Fe Railroad Company.

³¹ San Saba was one of the last counties in Texas to receive state highway funds.

inches of rain fell in seven days, a flood ravaged the area, killing two people, leaving over 1,500 homeless, and causing over \$3 million in damages. The river reached a height of forty-eight feet, topping all previous records.³² The flood destroyed homes, farms, crops, livestock, roads, fences, and bridges — including, for all intents and purposes, the Beveridge Bridge.

The bridge stayed in place, but the county commissioners deemed it unstable. The county hired the Austin Bridge Company of Dallas to reconstruct the bridge later that year, and the company, according to the specifications, re-floored the roadway except for a joist on the existing 30'-0" approach, built new handrails from the existing pipe truss, added new No. 9 gauge galvanized steel wire cables, and applied two coats of paint.³³ The towers, however, remained in place, and the suspender rods were removed only briefly so new wires could be strung through the cables.

Today, the bridge remains largely as the Austin Bridge Company left it in 1938. Wear and tear from increased automobile usage has forced a 10,000-pound weight limit on the bridge. In 1995, the county paid for a minor rehabilitation, adding some new I-beams under the deck and new wood planks and asphalt to the roadway. By the summer of 1996, what asphalt remained was only in patches, having cracked apart and peeled from the constant deflections caused by vehicular crossings. Yet the bridge remains in use, traversed by over fifty vehicles per day. Some of the vehicles haul crops (now mostly pecans and wheat rather than cotton), others bring workers to and from the fields, and still others transport students or townspeople to school, home, or for a country drive.

The Beveridge Bridge is perhaps no longer as vital to the region as it once was, but its importance to the initial economic development of the city and the county was paramount. And, as one of only two suspension bridges remaining built by the Flinn-Moyer Company and one of three associated with William Flinn, it is exemplary of a once-widespread regional tradition of small-scale suspension bridges. Despite its reconstruction, enough of the original design

³² During the flood of 1899, the San Saba River reached a height of forty-two feet, and in 1922, it reached forty feet. See San Saba Historical Commission, *County History*, pp. 461-62. Legend has it that stalwart bootleggers maintaining operations in the vicinity of the Beveridge Bridge remained atop the bridge during the rains, in defiance of the rising waters. Eventually they were washed away by the flood, never to be seen again. J. Lee Daniels, interview by author, San Saba, Texas, 13 June 1996.

³³ Specifications from "Contract No. 2269, Covering Material and Erection of Suspension Span Bridge" (Dallas: Austin Bridge Company, 8 December 1938). It should be noted that the bridge specifications called for repair to the "Beverly Bridge, 3 miles NW San Saba, Tex." However, the drawing of the bridge depicts a 140'-0" span suspension bridge, of which there is no other than the Beveridge Bridge in the vicinity. The particular handrails mentioned in the specifications no longer exist.

survives to remind us that the Beveridge Bridge is part of an important chapter in the engineering and transportation history of Texas.

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APPENDIX A: Suggestions for Further Research

Some questions concerning the Beveridge Bridge arose during the research and writing of this report. Some of these questions, due to limitations in the scope of the Texas Historic Bridges Project, remain unanswered. While the author, in some cases, has speculated upon the answers to these questions, it is suggested that scholars interested in this bridge consider pursuing the following:

- 1. Why was a suspension bridge chosen at this location, and was this a preference on the part of the county commissioners, or of the Flinn-Moyer Company?
- 2. If, on March 15, 1896, the county commissioners agreed to extend the bridge span to 130'-0", when or why did the span eventually increase to 140'-0"?
- 3. Why were the tripod-shaped supports chosen here?

APPENDIX B: Extant Suspension Bridges Built in Texas Before 1940

Bridge	Location	Builder	Туре	Span	Year
Waco	Spanning Brazos River at Bridge Street, Waco, McLennan County	Thomas M. Griffith	Catenary	475' clear span	1869; rebuilt 1914
Bluff Dale	Spanning Paluxy River at County Route 149, Bluff Dale, Erath County	Runyon Bridge Company, Weatherford, Texas	Cable- stayed	140' clear span	1891
Clear Fork of the Brazos	Spanning Clear Fork of the Brazos River at County Route 179, Shackelford County	Flinn-Moyer Company, Weatherford, Texas	Catenary	140' clear span	1896
Beveridge	Spanning San Saba River at County Route 112, San Saba County	Flinn-Moyer Company, Weatherford, Texas	Catenary	140' clear span	1896
	Spanning Choctaw Creek, Grayson County		Catenary		
Roma-San Pedro International Bridge	Spanning Rio Grande, between Roma, Starr County, and Ciudad Aleman, Mexico	George E. Cole, engineer	Catenary	700' overall	1928
Regency	Spanning Colorado River, between San Saba and Mills counties	Austin Bridge Company, Dallas, Texas	Catenary	340'	1939

Source:

County Bridge Files, Environmental Affairs Division, TxDOT, Austin, Texas.

APPENDIX C: Preliminary List of Bridges Built with Participation of William Flinn

Bridge	Location	Spanning	Туре	Span	Year
Bluff Dale	County Route 149, Bluff Dale, Erath County	Paluxy River	Cable- stayed	140'	1890
(a)	Stephenville-Meridian Public Road, Erath County	Bosque River			1890
(a)	Upper Granbury Public Road, Erath County	Bosque River			1890
(a)	Stephenville-Palo Pinto Road, Erath County	Bosque River			1890
Beveridge	County Route 112, San Saba, San Saba County	San Saba River	Catenary	140'	1896
Clear Fork of the Brazos River	County Route 179, Shackelford County	Clear Fork of the Brazos River	Catenary	140'	1896
(b)	Weatherford-Millsap Road, Parker County	Grindstone Creek		50'	1902
(e)	Bell County	Leon River			ca. 1903
	Bell County			1	ca. 1903
	Fisher County		Steel (truss?)		ca. 1903
	Fisher County		Steel (truss?)		. ca. 1903
	Parker County				ca. 1903
	Parker County				ca. 1903
	Johnson County				ca. 1903
(b)	Garner vicinity, Parker County?	Dry Creek		50'	
(c)	Rock Bluff Crossing, Weatherford, Parker County	Brazos River	lron		
Dark Valley (d)		Brazos River			
(d)	North Main Street, Weatherford, Parker County		Steel truss		
(e)	State Route 180, between Palo Pinto and Mineral Wells, Palo Pinto County	Brazos River?			

BEVERIDGE BRIDGE HAER No. TX-46 (Page 17)

Sources:

- (a) Erath County, Texas, Commissioners' Court Minutes, vol. E, p. 88 (March 7, 1890), p. 90 (March 27, 1890).
- (b) Weatherford Daily Herald, December 4, 1902.
- (c) Newspaper clipping, n.d. Vertical files, Weatherford Public Library Archives, Weatherford, Texas.
- (d) Parker County Historical Commission, *History of Parker County* (Dallas: Taylor Publishing Company, 1980), pp. 282-83.
- (e) Timothy L. Flinn Collection, Strawn, Texas.